

CLAIMS

1. An encoding device including:

generating means for generating a header to which
reference is made as needed during decoding;

5 encoding means for encoding the header generated by the
generating means and an input image signal, respectively;
and

outputting means for multiplexing the header and the
image signal encoded by the encoding means and outputting a
10 bitstream;

the encoding device being characterized in that the
generating means generates the header containing buffer
characteristic information about buffering during decoding
of the bitstream.

15 2. The encoding device according to claim 1,
characterized in that the generating means generates the
header containing the buffer characteristic information for
each predetermined section randomly accessible in the
bitstream.

20 3. The encoding device according to claim 1,
characterized in that the generating means generates the
header containing the buffer characteristic information for
an entire sequence of the bitstream.

4. The encoding device according to claim 1,
25 characterized in that the buffer characteristic information

contains all of a minimum bit rate R_{\min} , a minimum buffer size B_{\min} , and a minimum delay amount F_{\min} which are decodable during decoding of the bitstream.

5 5. The encoding device according to claim 1, characterized in that the buffer characteristic information contains at least one of a minimum bit rate R_{\min} , a minimum buffer size B_{\min} , and a minimum delay amount F_{\min} which are decodable during decoding of the bitstream.

10 6. An encoding method including:
a generating step of generating a header to which reference is made as needed during decoding;
an encoding step of encoding the header generated in the generating step and an input image signal, respectively;
and
15 an outputting step of multiplexing the header and the image signal encoded in the encoding step and outputting a bitstream;

the encoding method being characterized in that the processing in the generating step generates the header
20 containing buffer characteristic information about buffering during decoding of the bitstream.

7. A storage medium in which a computer-readable program is stored, the program including:
a generating step of generating a header to which
25 reference is made as needed during decoding;

an encoding step of encoding the header generated in the generating step and an input image signal, respectively; and

an outputting step of multiplexing the header and the
5 image signal encoded in the encoding step and outputting a bitstream;

the storage medium being characterized in that the processing in the generating step generates the header containing buffer characteristic information about buffering
10 during decoding of the bitstream.

8. A program that causes a computer to execute processing including:

a generating step of generating a header to which reference is made as needed during decoding;

15 an encoding step of encoding the header generated in the generating step and an input image signal, respectively; and

an outputting step of multiplexing the header and the image signal encoded in the encoding step and outputting a
20 bitstream;

the program being characterized in that the processing in the generating step generates the header containing buffer characteristic information about buffering during decoding of the bitstream.

25 9. A decoding device characterized by including:

searching means for searching for a header in an input
bitstream; and

decoding means for reading buffer characteristic
information about buffering, which information contained in
5 the header found by the searching means, and for decoding
the bitstream in accordance with the read buffer
characteristic information.

10. The decoding device according to claim 9,
characterized in that the buffer characteristic information
10 is added to the header for each predetermined section
randomly accessible in the bitstream.

11. The decoding device according to claim 9,
characterized in that the buffer characteristic information
about an entire sequence of the bitstream is added to the
15 header.

12. The decoding device according to claim 9,
characterized in that the buffer characteristic information
contains all of a minimum bit rate R_{\min} , a minimum buffer
size B_{\min} , and a minimum delay amount F_{\min} which are decodable
20 during decoding of the bitstream.

13. The decoding device according to claim 9,
characterized in that the buffer characteristic information
contains at least one of a minimum bit rate R_{\min} , a minimum
buffer size B_{\min} , and a minimum delay amount F_{\min} which are
25 decodable during decoding of the bitstream.

14. The decoding device according to claim 9,
characterized in that the decoding means creates a buffer
characteristic curve from the information read from the
bitstream, and the decoding device further includes
5 determining means for determining that the input bitstream
is decodable when a characteristic curve of the decoding
device is located above the characteristic curve of the
bitstream.

15. A decoding method characterized by including:
10 a searching step of searching for a header in an input
bitstream; and

a decoding step of reading buffer characteristic
information about buffering, which information contained in
the header found by the processing in the searching step,
15 and of decoding the bitstream in accordance with the read
buffer characteristic information.

16. A storage medium in which a computer-readable program
is stored, the program being characterized by including:

a searching step of searching for a header in an input
20 bitstream; and

a decoding step of reading buffer characteristic
information about buffering, which information contained in
the header found by the processing in the searching step,
and of decoding the bitstream in accordance with the read
25 buffer characteristic information.

17. A program characterized by causing a computer to execute processing including:

a searching step of searching for a header in an input bitstream; and

5 a decoding step of reading buffer characteristic information about buffering, which information contained in the header found by the processing in the searching step, and of decoding the bitstream in accordance with the read buffer characteristic information.

10 18. An editing device including:

searching means for searching for a header in an input bitstream;

determining means for reading buffer characteristic information about buffering, which information contained in
15 the header found by the searching means, and for determining whether or not the bitstream can be edited in accordance with the read buffer characteristic information; and

editing means for editing the bitstream when the determining means determines that the bitstream can be
20 edited,

the editing device being characterized in that, when a characteristic curve created from the information contained in the header in a first bitstream is always located above or is the same as a characteristic curve created from the
25 information contained in the header in a second bitstream,

the determining means determines that editing using the first bitstream and the second bitstream is possible.

19. An editing method including:

5 a searching step of searching for a header in an input bitstream;

a determining step of reading buffer characteristic information about buffering, which information contained in the header found by the processing in the searching step, and of determining whether or not the bitstream can be
10 edited in accordance with the read information; and

an editing step of editing the bitstream when the processing in the determining step determines that the bitstream can be edited,

the editing method being characterized in that, when a
15 characteristic curve created from the information contained in the header in a first bitstream is always located above or is the same as a characteristic curve created from the information contained in the header in a second bitstream, the processing in the determining step determines that
20 editing using the first bitstream and the second bitstream is possible.